ABSTRACT

The personal identification method through the measurement of subcutaneous bloodstream comprising: (1) a step of expanding and irradiating a laser beam to a finger pad and focusing light reflected from a blood vessel layer under skin onto an image sensor plane as laser speckles by using an optical system; (2) a step of determining an amount representing the rate of time variation of the amount of received light at each pixel of the laser speckles, for example, a mean rate of time variation or the reciprocal of the variation of the received light amount which is integrated in accordance with an exposure time of the image sensor, and setting the numerical value thus achieved as a two-dimensional map to thereby achieve a bloodstream map of the finger pad; and (3) a step of comparing a fingerprint pattern appearing as the bloodstream map with pre-registered personal data for identification.